

### **Abstract**

A method and circuit for terminating a pre-amplification array for stable linearity of a folding or flash analog-digital-converter (ADC) circuit over a temperature range. Termination resistors with pre-selected temperature coefficients are coupled between  
5 outputs of a first and a last amplifier of an amplifier bank in an averaged pre-amplification stage and a termination voltage source. The termination resistors and the termination voltage provide a current that compensates temperature dependent changes in the current flowing from other amplifiers outputs towards the output of the first and last amplifiers stabilizing linearity when temperature changes. Multiple termination resistors  
10 with different temperature coefficients may be employed to better approximate the desired temperature coefficient for optimum performance.

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